

Office Action Summary

Application No.

10/810,823

Applicant(s)

CHO ET AL.

Examiner

HELEN SHIBRU

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 9, 11 and 14-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 11 and 14-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 05/22/2008 and 04/28/2008
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/28/2008 has been entered.

Response to Amendment

2. The amendments filed on 04/28/2008 have been entered and made of record. Claims 1-4, 9, 11, 14-38 are pending.

Response to Arguments

3. Applicant's arguments with respect to claims 1-4, 9, 11, and 14-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 9, 11, and 14-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (US PG PUB 2002/0046328) in view of Yamamoto (US Pat. No. 5,742,569) and

further in view of Sacki (US PG PUB 2001/0043790), Sugimoto (US PG PUB 20010038745) and Official Notice.

Regarding claim 1, Okada discloses a computer readable recording medium having a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising: a data area storing at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths, (see page 2 paragraphs 0034-0037, page 8 paragraph 0175, paragraph 0193 and 0234, and figures 4, 26, and 29).

Claim 1 differs from Okada in that the claim further requires a navigation area storing a first navigation unit, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one second navigation unit referencing more than one map, each map associated with different one of the multiple reproduction paths and indicating a separate file of video data in the data area to reproduce.

In the same field of endeavor Yamamoto discloses a navigation area storing a first navigation unit, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units (see fig. 6, col. 12 lines 1-34, where it teaches the PGCI includes program information and cell information, col. 15 line 29- col. 16 line 40 and figs. 7A and 7B). Therefore in light of the teaching in Yamamoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okada by including navigation units in order to control the data.

Claim 1 further differs from the above proposed combinations in that the claim further requires at least one navigation data item referencing more than one map, each map being

associated with a different one of the multiple reproduction paths and indicating a separate file of video data in the data area to reproduce.

In the same field of endeavor Saeki discloses at least one navigation data item referencing more than one map, each map being associated with a different one of the multiple reproduction paths (see fig. 9 where it shows cell #1 referencing more than one map and each map are associated with one of the files. See also the abstract, paragraphs 0067, 0100, 0107-0118 and fig. 11). Therefore in light of the teaching in Saeki it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination by providing a navigation data item referencing more than one map in order to arrange address.

Claim 1 further differs from the above proposed combination in that the claim further requires the second navigation unit including at least one identifier for identifying one path of the multiple reproduction paths.

In the same field of endeavor Sugimoto discloses entry point (*referring to identifier*) contained in a cell (see figure 45). Sugimoto further discloses plural entry points are set for each movie cell and still image cell when plural reproduction path is present (see paragraph 0682-0684). Sugimoto further discloses the entry points are recorded in M_CI for each movie cell and S_CI for each still image cell. In addition Sugimoto discloses management information having a plurality of reproduction entry points for each of the reproduction paths. Therefore in light of the teaching in Sugimoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to skip to various points as desired in any of the possible paths.

Claim 1 further differs from Sugimoto, Sacki, Okada and Yamamoto in that the claim further requires the transport packets of each reproduction path being interleaved with one another.

Official Notice is taken that it is well known in the art to have the transport packets being interleave with one another. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination by including interleaved transport packets in order to reproduce split or combined data seamlessly.

Regarding claim 2, Okada discloses the transport packets associated with each reproduction path are grouped into data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis (see page 2 paragraphs 0034-0037, page 8 paragraph 0175, paragraph 0193 and 0234, and figures 4, 26, and 29, see also fig. 5 in Yamamoto and claim 1 rejection above).

Regarding claim 3, Okada discloses wherein each data block represents at least an intra-coded picture of video data (see figure 12 and paragraphs 0005-0009 in page 1 and paragraph 0167 in page 8 in Okada and fig. 2 in Yamamoto).

Regarding claim 4, Okada discloses wherein each data block represents at least one group of pictures (GOP) (see figure 4 in Okada and fig. 2 in Yamamoto).

Claim 9 is rejected for the same reason as discussed in claim 1.

Regarding claim 11, Okada discloses a computer-readable recording medium having a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

a data area storing a transport stream of at least video data, the transport stream being divided into transport packets, each of the transport packets associated with one of the multiple reproduction paths (see rejection of claim 1 above); and

Claim 11 differs from Okada in that the claim further requires a navigation area including a first navigation unit including one or more second navigation units, the second navigation unit providing navigation information for reproducing each of the multiple reproduction paths and, including a multiple reproduction path indicator indicating that the second navigation unit provides navigation information for multiple reproduction paths.

In the same field of endeavor Yamamoto discloses a navigation area storing a first navigation unit, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units (see fig. 6, col. 12 lines 1-34, where it teaches the PGCI includes program information and cell information, col. 15 line 29-col. 16 line 40 and figs. 7A and 7B). Therefore in light of the teaching in Yamamoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okada by including navigation units in order to control the data.

Claim 11 further differs from the above proposed combinations in that the claim further requires at least one navigation data item referencing more than one map, each map being associated with a different one of the multiple reproduction paths and indicating a separate file of video data in the data area to reproduce.

In the same field of endeavor Sacki discloses at least one navigation data item referencing more than one map, each map being associated with a different one of the multiple reproduction paths and indicating a separate file of video data in the data area to reproduce (see fig. 9 where it

shows cell #1 referencing more than one map and each map are associated with one of the files. See also the abstract, paragraphs 0067, 0100, 0107-0118 and fig. 11). Therefore in light of the teaching in Sacki it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination by providing a navigation data item referencing more than one map in order to arrange address.

Claim 11 further differs from the above proposed combination in that the claim further requires the second navigation unit including at least one identifier for identifying one path of the multiple reproduction paths.

In the same field of endeavor Sugimoto discloses entry point (*referring to identifier*) contained in a cell (see figure 45). Sugimoto further discloses plural entry points are set for each movie cell and still image cell when plural reproduction path is present (see paragraph 0682-0684). Sugimoto further discloses the entry points are recorded in M_CI for each movie cell and S_CI for each still image cell. In addition Sugimoto discloses management information having a plurality of reproduction entry points for each of the reproduction paths. Therefore in light of the teaching in Sugimoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to skip to various points as desired in any of the possible paths.

Claim 11 further differs from Sugimoto, Sacki, Okada and Yamamoto in that the claim further requires the transport packets of each reproduction path being interleaved with one another.

Official Notice is taken that it is well known in the art to have the transport packets being interleave with one another. Therefore it would have been obvious to one of ordinary skill in the

art at the time the invention was made to modify the above combination by including interleaved transport packets in order to reproduce split or combined data seamlessly.

Regarding claim 14, Okada discloses each reproduction path represents a digital channel (see pages 1-2).

Regarding claims 15, Okada discloses each reproduction path represents a sub-channel of an RF channel (see pages 1-2).

Regarding claims 16 and 17, limitation of claims 16 and 17 can be found in claim 1 above. Therefore claims 16 and 17 are analyzed and rejected for the same reason as discussed in claim 1 above.

Regarding claim 18, Okada discloses an apparatus for recording a data structure for managing reproduction duration at least video data representing multiple reproduction paths, comprising: a pickup configured to record data on the recording medium (see figure 12 which shows a driver circuit 63); a controller, operably coupled to the pickup (see fig. 12), configured to control recording a transport stream of at least video data on the recording medium, the transport stream being divided into transport packets, each of the transport packets associated with one of the multiple reproduction paths (see figure 12 which shows the driver circuit controlled by the controller MPU, and rejection of claim 1).

Claim 18 differs from Okada in that the claim further requires the controller configured to control recording a first navigation unit on the recording medium, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one of the second navigation units referencing more than one third navigation unit, each third navigation unit indicating a separate file of video data to reproduce.

In the same field of endeavor Yamamoto discloses a navigation area storing a first navigation unit, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units (see fig. 6, col. 12 lines 1-34, where it teaches the PGCI includes program information and cell information, col. 15 line 29-col. 16 line 40 and figs. 7A and 7B). Therefore in light of the teaching in Yamamoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okada by including navigation units in order to control the data.

Claim 18 further differs from the above proposed combinations in that the claim further requires at least one navigation data item referencing more than one map, each map being associated with a different one of the multiple reproduction paths.

In the same field of endeavor Saeki discloses at least one navigation data item referencing more than one map, each map being associated with a different one of the multiple reproduction paths (see fig. 9 where it shows cell #1 referencing more than one map and each map are associated with one of the files. See also the abstract, paragraphs 0067, 0100, 0107-0118 and fig. 11). Therefore in light of the teaching in Saeki it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination by providing a navigation data item referencing more than one map in order to arrange address.

Claim 18 further differs from the above proposed combination in that the claim further requires the second navigation unit including at least one identifier for identifying one path of the multiple reproduction paths.

In the same field of endeavor Sugimoto discloses entry point (*referring to identifier*) contained in a cell (see figure 45). Sugimoto further discloses plural entry points are set for each

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movie cell and still image cell when plural reproduction path is present (see paragraph 0682-0684). Sugimoto further discloses the entry points are recorded in M_CI for each movie cell and S_CI for each still image cell. In addition Sugimoto discloses management information having a plurality of reproduction entry points for each of the reproduction paths. Therefore in light of the teaching in Sugimoto it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to skip to various points as desired in any of the possible paths.

Claim 18 further differs from Sugimoto, Saeki, Okada and Yamamoto in that the claim further requires the transport packets of each reproduction path being interleaved with one another.

Official Notice is taken that it is well known in the art to have the transport packets being interleave with one another. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination by including interleaved transport packets in order to reproduce split or combined data seamlessly.

Claim 19 is rejected for the same reason as discussed in claim 18 above. See also figure 12 in Okada where it shows reproducing unit.

Regarding claim 20, the limitation of claim 20 can be found in claim 1 above. Therefore claim 20 is analyzed and rejected for the same reason as discussed in claim 1.

Regarding claim 21, Sacki discloses a number of the third navigation units associated with the at least one of the second navigation units is equal to a number of the multiple reproduction paths (see figure 9, see also claim 1 rejection above).

Regarding claim 22, Yamamoto discloses at least one of the second navigation units includes a field indicating whether the at least one of the second navigation units provides navigation information for multiple reproduction paths (see figures 6 and 7A-7B. See also claim 1 rejection above).

Claim 23 is rejected for the same reason as discussed in claim 1 above.

Claims 24, 25 and 26 are rejected for the same reason as discussed in claims 2-3, and 15 respectively above.

Claims 27-29 are rejected for the same reason as discussed in claims 2-3, and 15 respectively above.

Claims 30-32 are rejected for the same reason as discussed in claims 2-3, and 15 respectively above.

Claims 33-35 are rejected for the same reason as discussed in claims 2-3, and 15 respectively above.

Claims 36-38 are rejected for the same reason as discussed in claims 2-3, and 15 respectively above.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-4, 9, 11, 14-15, 20-22, and 24-26 are rejected under 35 U.S.C. 101 because the claims are directed to a recording medium storing nonfunctional descriptive material.

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical “things” nor statutory

processes. See, e.g. Warmerdam, 33 F. 3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory) and merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. In addition a mere arrangements or compilations of facts or data, are merely stored so as to be read or outputted by a computer without creating any functional interrelationship either as part of the stored data or as part of the computing processes performed by the computer then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer, and therefore are not statutory. See MPEP 2106.IV.B.1.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kashiwagi et al. (US Pat. No. 6,393,574) discloses interleaved transport packets.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571)272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HELEN SHIBRU/
Examiner, Art Unit 2621
July 2, 2008

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621